

WHAT IS CLAIMED IS:

1. A method for activating a card in a network element comprising one or more switch cards, the method comprising:

```

        determining a type of the card;
        retrieving an executable file stored remotely
from the card and switch cards based on the type of the
card;
10         downloading the executable file to a memory for
a processor on the card without using boot code on the
card; and
        operating the card using the executable file.

```

15 2. The method of Claim 1, the memory comprising a
volatile memory.

3. The method of Claim 1, downloading the executable file to a memory for a processor on the card without using boot code on the card comprising holding the processor while downloading the executable file and releasing the processor subsequent to downloading the executable file.

4. The method of Claim 3, holding the processor
25 comprising holding the processor with a state machine and
releasing the processor comprising releasing the processor
with the state machine.

5. The method of Claim 4, the state machine
30 comprising a field-programmable gate array.

7. The method of Claim 4, the state machine
5 comprising discrete logic.

10

15 10. The method of Claim 8, further comprising
transmitting a reset message for the card to the download
card.

11. A system for activating a card in a network element comprising one or more switch cards, the system comprising:

5 a line card comprising a processor and an associated memory;

10 a common card operable to communicate with a plurality of line cards and operable to determine a type for the line card, to retrieve an executable file for the line card based on the type of the line card, the executable file stored remotely from the line card and the common card, and to download the executable file to the memory on the line card without using boot code on the line card; and

15 the processor operable to operate the line card using the executable file.

12. The system of Claim 11, the memory comprising a volatile memory.

20 13. The system of Claim 11, further comprising a state machine operable to hold the processor while downloading the executable file and to release the processor subsequent to downloading the executable file.

25 14. The system of Claim 13, the state machine comprising a field-programmable gate array.

30 15. The system of Claim 13, the state machine comprising an application-specific integrated circuit.

17. The system of Claim 11, the common card
5 comprising a dedicated download card.

10 19. The system of Claim 11, further comprising a
server remote from the common card, the server comprising
a memory operable to store the executable file.

20. A line card for a network element comprising one or more line cards, the line card comprising:

- a processor;
- a memory associated with the processor;
- 5 an activation system operable to identify the line card to the network element, to hold the processor while the network element downloads an executable file for the line card to the memory without using boot code on the line card, and to release the processor subsequent to the
- 10 downloading of the executable file; and
- the processor operable to operate the line card using the executable file.

21. The line card of Claim 20, the memory comprising
15 a volatile memory.

22. The line card of Claim 20, the activation system comprising a state machine.

20 23. The line card of Claim 22, the state machine comprising a field-programmable gate array.

24. The line card of Claim 22, the state machine comprising an application-specific integrated circuit.

25 25. The line card of Claim 22, the state machine comprising discrete logic.

5

0

15

DAL01:501698.1